

Claims

We claim:

5        1. An integrated system for electronically monitoring remote objects comprising:  
a controller for monitoring one or more moveable objects;  
a plurality of detectors for detecting one or more objects monitorable by the  
controller; and  
a digital network for selectively interconnecting the controller to one or more  
10      detectors.

15        2. The system of Claim 1 wherein:  
the controller comprises a database comprising a representation of each  
monitorable object, each object representation having a position relative to one or more  
detector.

20        3. The system of Claim 2 wherein:  
at least one of the detectors comprises a camera for generating a digitized image  
signal of a monitored object disposed relative to such camera, the controller receiving the  
digitized image signal to monitor such object.

25        4. The system of Claim 2 wherein:  
the controller further comprises software means for detecting movement of one or  
more monitored object and modifying the object representation of each object detected to  
move in the database to indicate an updated position.

30        5. The system of Claim 2 wherein:  
the controller further comprises a browser interface for graphically displaying at  
least one monitored object relative to one or more detector, the digital network  
comprising an Internet network infrastructure.

6. The system of Claim 1 further comprising:

at least one moveable unit corresponding to at least one monitored object, each moveable unit comprising means for determining a position of such moveable unit, each moveable unit coupled to the digital network, such that the determined position is  
5 accessible by the controller.

7. An integrated system for real-time monitoring of one or more remote objects comprising:

10 a target unit in proximity to one or more remote objects, the target unit comprising a sensor unit, and a communication unit, including at least a processor and an Internet access application,

a controller comprising a browser software interface for accessing a website comprising remote real-time object data associated with the remote object and displaying the remote object data on a screen,

15 a database comprising a representation of each monitored object, and software means for detecting movement of one or more monitored object and modifying the object representation of each object movement to indicate an updated position in the database;

20 a plurality of camera detectors for detecting one or more objects monitored by the controller, and generating a digitized image signal of the monitored object disposed relative to the camera, the controller receiving the digitized image signal to monitor such object; and

25 a digital Internet network for selectively interconnecting the controller to one or more camera detectors.

8. An integrated system for electronically monitoring remote objects comprising:

30 a controller comprising a browser software interface for monitoring one or more moveable objects and graphically displaying at least one monitored object, a database comprising a representation of each monitored object, and software means for detecting movement of one or more monitored object and modifying the object representation of each object movement to indicate an updated position in the database;

a plurality of camera detectors for detecting one or more objects monitored by the controller, and generating a digitized image signal of the monitored object disposed relative to the camera, the controller receiving the digitized image signal to monitor such object; and

5 a digital Internet network for selectively interconnecting the controller to one or more camera detectors.

9. The system of Claim 8 further comprising:

10 at least one moveable unit corresponding to at least one monitored object, each moveable unit comprising a Global Positioning Satellite (GPS) receiver for determining a position of such moveable unit, each moveable unit coupled to the digital Internet network, such that the determined position is accessible by the controller.

15 10. In a network comprising a controller coupled to a plurality of detectors, a method for electronically monitoring remote objects, the method comprising the steps of:

monitoring remotely over an Internet connection by a controller one or more moveable objects detected by one or more detectors;

maintaining a database comprising a representation of each monitored object;

detecting a movement of one or more monitored object; and

modifying in the database the object representation of each object movement to indicate an updated position.

20 11. The method of Claim 10 further comprising the steps of:

determining by a moveable unit corresponding to at least one monitored object, the moveable unit comprising a Global Positioning Satellite (GPS) receiver accessible to the controller, a position of such moveable unit; and

communicating the moveable unit position to the controller.

25 12. In an integrated digital monitoring system comprising a fixed network including a controller and a plurality of detectors, and a mobile network including a plurality of mobile sensors associated with a plurality of mobile objects, such sensors and

detectors coupled to the Internet, a method for object surveillance comprising the steps of:

- receiving from at least one detector of the fixed network a first signal for monitoring an object associated therewith;
- 5 receiving from at least one sensor of the mobile network a second signal for monitoring the associated object;
- determining a location of the associated object according to the first signal or the second signal; and
- storing in a database the location of the associated object.

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13. The method of Claim 12 further comprising the steps of:

selecting a local product source relatively proximate to the object location;

and

15 sending an indication of the selected product source through at least part of the mobile network for consideration by the object.

14. The method of Claim 12 further comprising the steps of:

receiving from at least one detector of the fixed network a third signal for monitoring the object associated therewith;

20 receiving from at least one sensor of the mobile network a fourth signal for monitoring the associated object;

determining a changed location of the associated object according to the third signal or the fourth signal; and

25 storing in the database the changed location of the associated object.

15. The method of Claim 12 further comprising the steps of:

providing a map including the object location; and

displaying the map and the object location included therein.

16. In a console processing unit coupled via the Internet to at least one fixed detector and at least one mobile sensor, a data structure for representing a monitored object, the data structure comprising:

5 an object identifier;

a first object location and a time monitored at such location, provided by a detector coupled to the console processing unit; and

10 a second object location and a time monitored at such location, provided by a sensor coupled to the console processing unit.

17. The data structure of Claim 16 further comprising:

15 a scheduled object location and a time scheduled for such location.

18. In an Internet-coupled network for electronically linking at least one fixed vendor processor to at least one mobile buyer processor, a method for transacting between vendor and buyer processors, the method comprising the steps of:

20 determining a first location of a mobile buyer processor coupled to the Internet; receiving from the mobile buyer processor a first transaction message; and

25 sending to the mobile buyer processor a second transaction message indicating a first fixed vendor processor proximately disposed to the first location.

19. The method of Claim 18 further comprising the steps of:

determining a second location of the mobile buyer processor;

receiving from the mobile buyer processor a third transaction message; and

sending to the mobile buyer processor a fourth transaction message indicating a

25 second fixed vendor processor proximately disposed to the second location.

20. Integrated tele-medicine system using fixed and mobile processor communication for enabling remote medical care, the system comprising:

30 a care-giver processor coupled to a packet-switched digital network, the care-giver processor accessing a database including a representation of an identity and a location of at least one remote patient;

a mobile communications unit physically associated with a remote patient for monitoring at least one medical vital sign of such remote patient, the mobile communications unit communicating such monitored vital sign to the care-giver processor through the digital network; and

5 a first detector coupled to the digital network and selected by the care-giver processor for observing the remote patient when such remote patient is determined by the care-giver processor to be located within a first observation range of the selected first detector.

10 21. The system of Claim 20 further comprising:

a second detector coupled to the digital network and selected by the care-giver processor for observing the remote patient when such remote patient is determined by the care-giver processor to have moved and subsequently located within a second observation range of the selected second detector.

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